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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,165	12/05/2003	Krishna Prasad Chitrapura	JP920030160US1	8575

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EXAMINER
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VO, HUYEN X

ART UNIT	PAPER NUMBER
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2626

MAIL DATE	DELIVERY MODE
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12/09/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/729,165	<b>Applicant(s)</b> CHITRAPURA ET AL.	
	<b>Examiner</b> HUYEN X. VO	<b>Art Unit</b> 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-10,12,13,16-35 and 37-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-10,12,13,16-35 and 37-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 8/20/2009 have been fully considered but they are not persuasive. The limitation "establishing a predetermined set of regular expressions" is treated as a database containing regular expressions accessible by the system and is taught by Privault et al. as shown in figure 2. Privault et al. also disclosed a sequence of POS tags for each corresponding regular expression (*referring to figure 4; each word of the regular expression is associated with a POS tag*). Figure 4 shows a sequence of POS tags (e.g. verb, adj, adv, noun, etc.) connected in the network of the multiword transducer (POS explains not what the word is, but how the word is used). Also, paragraphs 64 and 65 discuss morphological analysis of the input regular expressions and replace each word with its base forms and its POS information (POS tag examples are shown throughout the Privault. A particular example is shown in paragraph 70).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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3. Claims 1, 10, 33, and 41-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Privault et al. (US Patent Pub. No. 2004/0128122).

4. Regarding claims 1, 10, and 33, Privault et al. disclose a method and program storage device (*figure 1, memory*) of analyzing opinions in a text document, said method (*figure 2*) comprising:

using a computer, establishing a predetermined set of regular expressions (*multiword regular expression database 210 in figure 2*), each regular expression of said predetermined set of regular expressions corresponding to a specific parts-of-speech (POS) tag sequence (*referring to figure 4; each word of the regular expression is associated with a POS tag*);

using said computer, inputting and parsing said text document to provide a plurality of POS tag sequences (*text is input in 218 in figure 2; referring to paragraphs 64 and 66 for processing the input text to assign POS tags*); and

using said computer, matching said predetermined set of regular expressions to said plurality of POS tag sequences from said text document by to provide one or more extracted opinions (*referring to paragraphs 66-69*);

using said computer, lexically analyzing each word of said one or more extracted opinions to group said one or more extracted opinions into clusters of extracted opinions (*referring to paragraph 72; return extracted regular expression and categorization information*); and

using said computer, graphically displaying said clusters of extracted opinions, wherein said graphically displaying comprises displaying relative proportions of said extracted opinions in said clusters of extracted opinions (*referring to paragraphs 72-73; a cluster includes all possible senses of extracted regular expressions; each of these regular expressions are shown in relative of the others*).

5. Regarding claims 41-42, Privault et al. further disclose the step of graphically displaying said clusters of extracted opinions, wherein said graphically displaying comprises displaying relative proportions of said extracted opinions in said clusters of extracted opinions (*referring to paragraphs 72-73; a cluster includes all possible senses of extracted regular expressions; each of these regular expressions are shown in relative of the others*).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-3, 6-9, 12-13, 16-19, 29-30, and 34-35, and 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Privault et al. (US Patent Pub. No. 2004/0128122) in view of Subasic et al. (USPN 6721734).

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8. Regarding claims 2-3, 6-9, 12-13, 16-19, 29-30, and 34-35, and 37-40, Privault et al. fail to specifically disclose subject matters claimed in claims 2-3, 6-9, 12-13, 16-19, 29-30, and 34-35, and 37-40. However, Subasic et al. teach wherein said clusters of extracted opinions comprise any of positive and negative clusters of extracted opinions, and neutral (*col. 6, lines 1-7*), organizing said clusters of extracted opinions into groups, wherein said one or more extracted opinions within each of said groups comprises a similar topic (*col. 6, lines 1-7, grouping categories with high similarity together*), wherein said lexically analyzing each word of said one or more extracted opinions comprises accessing a natural language database to group said one or more extracted opinions into said clusters of extracted opinions (*col. 6, lines 1-7, grouping categories with high similarity together*), wherein said lexically analyzing each word of said one or more extracted opinions comprises identifying any of a synonym and an antonym for said each word of said one or more extracted opinions (*col. 5, lines 61-67, thesaurus is used*), wherein said lexically analyzing each word of said one or more extracted opinions comprises determining of a morphological stem for said each word of said one or more extracted opinions (*normalization in step 102 in figure 2 and/or referring to col. 3, lines 18-36*), and marking said one or more extracted opinions in said text document with classification tags, wherein said classification tags correspond to said clusters of extracted opinions (*col. 3, lines 49 to col. 5, line 67*).

Since Privault et al. and Subasic et al. are analogous in the art because they are from the same field of endeavor, it would have been obvious to one of ordinary skill in

the art at the time of invention to modify Privault et al. by incorporating the teaching of Subasic et al. in order to analyze of human emotion through written text.

9. Claims 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Privault et al. (US Patent Pub. No. 2004/0128122) in view of Subasic et al. (USPN 6721734), and further in view of Chase (US 6332143).

10. Regarding claims 31-32, Privault et al. fail to specifically disclose the step of graphically displaying said clusters of extracted opinions, wherein said graphically displaying comprises displaying relative proportions of said extracted opinions in said clusters of extracted opinions, and wherein said graphically displaying comprises displaying said clusters of extracted opinions using a bar-chart. However, Chase teaches the step of graphically displaying said clusters of extracted opinions, wherein said graphically displaying comprises displaying relative proportions of said extracted opinions in said clusters of extracted opinions (*figure 5*), and wherein said graphically displaying comprises displaying said clusters of extracted opinions using a bar-chart (*figure 5*).

Since Subasic et al. and Chase are analogous in art because they are from the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Subasic et al. by incorporating the teaching of Chase in order to provide the user a visual summary of emotional characteristics of the text document.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hu et al. (US 7234942) is considered pertinent to the claimed invention.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN X. VO whose telephone number is (571)272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Huyen X Vo/  
Primary Examiner, Art Unit 2626

12/4/2009

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